REMARKS

Claims 1-9 and 17-26 were examined. Claims 10-16 are withdrawn. Claims 1, 2, 3, 9, 17, 18, 21 and 23 were amended. Claim 7 was cancelled. Claims 1-6, 8, 9, and 17-26 remain in the application.

The Patent Office rejects claims 9 and 23 under 35 U.S.C. § 112, second paragraph. The Patent Office rejects claims 1, 3-7, 9, 17, 19-21 and 23 under 35 U.S.C. § 102(b). Reconsideration of the rejected claims is respectfully requested in view of the above amendment and the following remarks.

A. 35 U.S.C. § 112, second paragraph: Rejection of Claims 9 and 23

The Patent Office rejects Claims 9 and 23 under 35 U.S.C. § 112, second paragraph, as indefinite.

Claims 9 and 23 are amended. The amended claims include sufficient antecedent basis for any limitation.

Accordingly, Applicant requests that the Patent Office withdraw this objection.

B. 35 U.S.C. § 102(b): Rejection of Claims 1, 3-7, 9, 17, 19-21 and 23

The Patent Office rejects Claims 1, 3-7, 9, 17, 19-21 and 23 under 35 U.S.C. § 102(b) as anticipated by Wu et al. in Nano Letters, Vol. 2, No. 2 83-86 (2002) (hereinafter, Wu). Wu teaches periodically inserting germanium into a silicon nano-wire growing from a gold nanoparticle.

Independent claim 1 is not anticipated by <u>Wu</u>, because <u>Wu</u> does not teach a method of growing a first nanowire segment, growing a second nanowire segment, and sacrificing one of the first segment and the second nanowire segment. (<u>See</u>, Application, pg. 3, lines 27-30). To the extent <u>Wu</u> teaches a method of inserting germanium into a silicon nanowire, <u>Wu</u> fails to describe growing alternating nanowire segments having different solubility properties and sacrificing a nanowire segment. <u>Wu</u> teaches a method of growing a continuous silicon nanowire but periodically inserting germanium segments in conjunction with the silicon.

Similarly, independent claim 17 is not anticipated by <u>Wu</u> because claim 17 also discloses first nanowire segments and second nanowire segments comprising material having different solubility and sacrificing one of the first and the second nanowire segments. For at least the reason stated with respect to claim 1, claim 17 is not anticipated by <u>Wu</u>.

Claims 3-6, and 9 depend from claim 1 and therefore contain all the limitations of that claim. For at least the reason stated with respect to claim 1, claims 3-6 and 9 are not anticipated by <u>Wu</u>. Applicant cancelled claim 7 and thus the Patent Office's rejection with respect to claim 7 is moot. Claims 19-21 and 23 depend from claim 17 and therefore contain all the limitations of that claim.

For at least the reason stated with respect to claim 17, claims 19-21 and 23 are not anticipated by Wu. Applicant respectfully requests that the Patent Office withdraw the rejection of claims 1, 3-6, 9, 17, 19-21 and 23 under 35 U.S.C. § 102(b) as anticipated by Wu.

C. Objection to Claims 2, 8, 22 and 24-26

The Patent Office objects to claims 2, 8, 22 and 24-26 as being dependent upon as rejected base claim. The Patent Office finds the subject matter of these claims allowable over the prior art of record.

Claims 2 and 8 depend from claim 1. Claims 22 and 24-26 depend from claim 17. Applicant believes claim 1 and 17 are patentable over the prior art of record for the reasons stated above. Applicant respectfully requests that the Patent Office withdraw the objection.

In view of the foregoing, it is believed that all claims now pending are in condition for allowance. A Notice of Allowance is earnestly solicited at the earliest possible date. If the Patent Office believes that a telephone conference would be useful in moving the Application forward to allowance, the Patent Office is encouraged to contact the undersigned at (310) 207-3800.

REQUEST FOR EXTENSION OF TIME

Per 37 C.F.R. 1.136(a) and in connection with the Final Office Action mailed on FRIDAY, DECEMBER 17, 2004, Applicant respectfully petitions Commissioner for a one (1) month extension of time, extending the period for response to MONDAY, APRIL 18, 2005 (April 17 being a Sunday). Attached is a check in the amount of \$120 to cover the petition filing fee for a 37 C.F.R. 1.17(a)(1) large entity. A duplicate copy of this sheet is enclosed.

If necessary, the Commissioner is hereby authorized in this, concurrent and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2666 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17, particularly extension of time fees.

Respectfully submitted,

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CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class many with sufficient postage in an envelope addressed to: Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Affectable, VA 22313-1450 on March 3/, 2005

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For at least the reason stated with respect to claim 17, claims 19-21 and 23 are not anticipated by Wu. Applicant respectfully requests that the Patent Office withdraw the rejection of claims 1, 3-6, 9, 17, 19-21 and 23 under 35 U.S.C. § 102(b) as anticipated by <u>Wu</u>.

C. Objection to Claims 2, 8, 22 and 24-26

The Patent Office objects to claims 2, 8, 22 and 24-26 as being dependent upon as rejected base claim. The Patent Office finds the subject matter of these claims allowable over the prior art of record.

Claims 2 and 8 depend from claim 1. Claims 22 and 24-26 depend from claim 17. Applicant believes claim 1 and 17 are patentable over the prior art of record for the reasons stated above. Applicant respectfully requests that the Patent Office withdraw the objection.

In view of the foregoing, it is believed that all claims now pending are in condition for allowance. A Notice of Allowance is earnestly solicited at the earliest possible date. If the Patent Office believes that a telephone conference would be useful in moving the Application forward to allowance, the Patent Office is encouraged to contact the undersigned at (310) 207-3800.

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